

TABLE I: Full breakdown of the systematic uncertainties in bins of $m(t\bar{t})$. The term δ^{WHF} refers to the uncertainty due to the W +jets heavy flavor scale factor, the term δ^{jet} includes uncertainties due to jet energy scale, reconstruction and identification, the term δ^{SPR} refers to the uncertainty due the single particle response corrections, the term δ^{MJ} refers to the one due to the multijet background estimation, the term $\delta^{\text{Sig.}}$ refers to the signal model uncertainty, the term δ^σ includes uncertainties on the cross section of the $t\bar{t}$, single top quark and diboson processes, the term $\delta^{\text{Trig.}}$ refers to the uncertainty due to trigger efficiencies, the term $\delta^{\text{Proc.}}$ refers to the uncertainties due to the unfolding method. In addition there is a 6.1% normalization uncertainty, which is correlated accross all bins due to the uncertainty on the integrated luminosity.

Bin [TeV]	δ^{WHF} [pb/TeV]	δ^{jet} [pb/TeV]	δ^{SPR} [pb/TeV]	δ^{PDF} [pb/TeV]	δ^{m_t} [pb/TeV]	δ^{MJ} [pb/TeV]	$\delta^{b-\text{ID}}$ [pb/TeV]	$\delta^{\text{Sig.}}$ [pb/TeV]	$\delta^{PT(t\bar{t})}$ [pb/TeV]	δ^ℓ [pb/TeV]	δ^σ [pb/TeV]	$\delta^{\text{Trig.}}$ [pb/TeV]	$\delta^{\text{Proc.}}$ [pb/TeV]
0.2400 – 0.4125	+0.41 –0.40	+1.57 –1.47	+0.12 –0.12	+0.07 –0.07	+0.05 –0.05	+0.19 –0.13	+1.11 –1.06	+3.04 –2.99	+0.00 –0.00	+0.10 –0.10	+0.43 –0.44	+1.24 –1.24	+0.01 –0.01
0.4125 – 0.5050	+0.45 –0.45	+0.47 –0.57	+0.03 –0.03	+0.04 –0.04	+0.19 –0.19	+0.03 –0.11	+0.13 –0.13	+0.22 –1.18	+0.30 –0.31	+0.14 –0.14	+0.26 –0.26	+1.66 –1.66	+0.18 –0.18
0.5050 – 0.6150	+0.13 –0.13	+0.56 –0.62	+0.02 –0.02	+0.04 –0.04	+0.10 –0.10	+0.01 –0.05	+0.11 –0.11	+0.44 –0.72	+0.16 –0.16	+0.03 –0.03	+0.00 –0.00	+0.23 –0.23	+0.05 –0.05
0.6150 – 0.7500	+0.04 –0.04	+0.07 –0.07	+0.06 –0.06	+0.09 –0.08	+0.09 –0.10	+0.00 –0.02	+0.00 –0.00	+0.35 –0.58	+0.06 –0.06	+0.06 –0.06	+0.17 –0.18	+0.05 –0.05	+0.06 –0.05
0.7500 – 0.1200	+0.00 –0.00	+0.02 –0.03	+0.01 –0.00	+0.01 –0.01	+0.02 –0.01	+0.00 –0.00	+0.02 –0.03	+0.04 –0.01	+0.03 –0.03	+0.01 –0.01	+0.03 –0.02	+0.00 –0.00	+0.00 –0.00

TABLE II: Full breakdown of the systematic uncertainties in bins of $|y^{\text{top}}|$. The term δ^{WHF} refers to the uncertainty due to the W +jets heavy flavor scale factor, the term δ^{jet} includes uncertainties due to jet energy scale, reconstruction and identification, the term δ^{SPR} refers to the uncertainty due the single particle response corrections, the term δ^{MJ} refers to the one due to the multijet background estimation, the term $\delta^{\text{Sig.}}$ refers to the signal model uncertainty, the term δ^{σ} includes uncertainties on the cross section of the $t\bar{t}$, single top quark and diboson processes, the term $\delta^{\text{Trig.}}$ refers to the uncertainty due to trigger efficiencies, the term $\delta^{\text{Proc.}}$ refers to the uncertainties due to the unfolding method. In addition there is a 6.1% normalization uncertainty, which is correlated accross all bins due to the uncertainty on the integrated luminosity.

Bin	$\delta^{\text{WHF}}_{[\text{pb}]}$	$\delta^{\text{jet}}_{[\text{pb}]}$	$\delta^{\text{SPR}}_{[\text{pb}]}$	$\delta^{\text{PDF}}_{[\text{pb}]}$	$\delta^{mt}_{[\text{pb}]}$	$\delta^{\text{MJ}}_{[\text{pb}]}$	$\delta^{b-1D}_{[\text{pb}]}$	$\delta^{\text{Sig.}}_{[\text{pb}]}$	$\delta^{PT(t\bar{t})}_{[\text{pb}]}$	$\delta^{\ell}_{[\text{pb}]}$	$\delta^{\sigma}_{[\text{pb}]}$	$\delta^{\text{Trig.}}_{[\text{pb}]}$	$\delta^{\text{Proc.}}_{[\text{pb}]}$
0.00 – 0.25	+0.13 -0.13	+0.38 -0.50	+0.22 -0.23	+0.02 -0.02	+0.02 -0.02	+0.04 -0.05	+0.04 -0.06	+0.15 -0.77	+0.03 -0.03	+0.02 -0.02	+0.10 -0.10	+0.22 -0.22	+0.01 -0.02
0.25 – 0.50	+0.14 -0.14	+0.40 -0.60	+0.04 -0.04	+0.02 -0.02	+0.03 -0.03	+0.03 -0.04	+0.04 -0.04	+0.49 -0.54	+0.02 -0.02	+0.03 -0.03	+0.11 -0.11	+0.25 -0.25	+0.03 -0.05
0.50 – 0.75	+0.12 -0.12	+0.02 -0.08	+0.06 -0.06	+0.03 -0.03	+0.04 -0.04	+0.03 -0.04	+0.04 -0.05	+0.11 -0.10	+0.00 -0.00	+0.01 -0.01	+0.10 -0.10	+0.11 -0.11	+0.01 -0.01
0.75 – 1.00	+0.10 -0.10	+0.20 -0.22	+0.12 -0.11	+0.02 -0.02	+0.01 -0.01	+0.02 -0.03	+0.02 -0.02	+0.18 -0.30	+0.01 -0.01	+0.02 -0.02	+0.09 -0.09	+0.12 -0.12	+0.00 -0.00
1.00 – 1.25	+0.07 -0.07	+0.43 -0.48	+0.28 -0.24	+0.05 -0.06	+0.05 -0.05	+0.00 -0.01	+0.06 -0.07	+0.03 -0.03	+0.06 -0.06	+0.02 -0.02	+0.01 -0.01	+0.18 -0.18	+0.01 -0.01
1.25 – 1.50	+0.05 -0.06	+0.14 -0.15	+0.13 -0.15	+0.08 -0.07	+0.07 -0.05	+0.00 -0.01	+0.10 -0.09	+0.10 -0.12	+0.05 -0.03	+0.05 -0.05	+0.03 -0.05	+0.04 -0.04	+0.00 -0.01

TABLE III: Full breakdown of the systematic uncertainties in bins of p_T^{top} . The term δ^{WHF} refers to the uncertainty due to the W +jets heavy flavor scale factor, the term δ^{jet} includes uncertainties due to jet energy scale, reconstruction and identification, the term δ^{SPR} refers to the uncertainty due the single particle response corrections, the term δ^{MJ} refers to the one due to the multijet background estimation, the term $\delta^{\text{Sig.}}$ refers to the signal model uncertainty, the term δ^σ includes uncertainties on the cross section of the $t\bar{t}$, single top quark and diboson processes, the term $\delta^{\text{Trig.}}$ refers to the uncertainty due to trigger efficiencies, the term $\delta^{\text{Proc.}}$ refers to the uncertainties due to the unfolding method. In addition there is a 6.1% normalization uncertainty, which is correlated accross all bins due to the uncertainty on the integrated luminosity.

Bin [TeV]	δ^{WHF} [pb/TeV]	δ^{jet} [pb/TeV]	δ^{SPR} [pb/TeV]	δ^{PDF} [pb/TeV]	δ^{m_t} [pb/TeV]	δ^{MJ} [pb/TeV]	$\delta^{b-\text{ID}}$ [pb/TeV]	$\delta^{\text{Sig.}}$ [pb/TeV]	$\delta^{pT(t\bar{t})}$ [pb/TeV]	δ^ℓ [pb/TeV]	δ^σ [pb/TeV]	$\delta^{\text{Trig.}}$ [pb/TeV]	$\delta^{\text{Proc.}}$ [pb/TeV]
0.000 – 0.045	+1.04 -1.01	+0.90 -0.88	+0.47 -0.39	+0.18 -0.18	+0.91 -0.99	+0.30 -0.21	+0.22 -0.22	+1.91 -3.36	+0.36 -0.36	+0.13 -0.13	+0.85 -1.10	+1.67 -1.67	+0.22 -0.19
0.045 – 0.090	+0.65 -0.63	+0.47 -0.67	+0.40 -0.43	+0.14 -0.14	+0.23 -0.22	+0.26 -0.15	+0.27 -0.26	+0.47 -2.30	+0.41 -0.42	+0.18 -0.18	+0.46 -0.47	+1.25 -1.25	+0.02 -0.08
0.090 – 0.140	+0.57 -0.56	+0.98 -1.10	+0.57 -0.70	+0.02 -0.02	+0.85 -0.90	+0.07 -0.13	+0.30 -0.31	+2.30 -2.75	+0.30 -0.30	+0.04 -0.04	+0.21 -0.21	+1.04 -1.04	+0.13 -0.11
0.140 – 0.200	+0.18 -0.18	+0.22 -0.45	+0.30 -0.25	+0.02 -0.02	+0.32 -0.33	+0.01 -0.08	+0.05 -0.05	+0.90 -1.01	+0.26 -0.26	+0.00 -0.00	+0.19 -0.19	+0.57 -0.57	+0.04 -0.06
0.200 – 0.300	+0.03 -0.03	+0.10 -0.14	+0.11 -0.08	+0.02 -0.02	+0.05 -0.05	+0.00 -0.02	+0.03 -0.03	+0.33 -0.27	+0.09 -0.08	+0.01 -0.01	+0.03 -0.03	+0.10 -0.10	+0.00 -0.03
0.300 – 0.400	+0.00 -0.00	+0.06 -0.08	+0.00 -0.00	+0.01 -0.01	+0.01 -0.01	+0.00 -0.00	+0.02 -0.02	+0.01 -0.01	+0.02 -0.02	+0.01 -0.01	+0.01 -0.01	+0.01 -0.01	+0.00 -0.00